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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/925,314 | 08/10/2001 | Christopher R. Risucci | 1778.0180000 | 4782 |

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| EXAMINER |
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TSAI, HENRY

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| ART UNIT | PAPER NUMBER |
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2183

DATE MAILED: 06/03/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/925,314

Applicant(s)

RISUCCI, CHRISTOPHER R.

Examiner

Henry W.H. Tsai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-8,10,11,15 and 17-20 is/are rejected.
- 7) ☒ Claim(s) 2, 9, 12-14, 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other: _____

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DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claims 3-7, 11, and 18-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 3, line 2, it is not clear how an address can be coded into an instruction since an address and an instruction represent different information.

In claim 4, line 3, "the exception flag" lacks proper antecedent basis since it was not defined previously.

In claim 11, line 3, "the exception flag" lacks proper antecedent basis since it was not defined previously.

In claim 18, lines 2-3, it is not clear how an address can be transformed into an instruction since an address and an instruction represent different information.

In claim 19, line 2, it is not clear how an instruction can be transformed into an address since an address and an instruction represent different information.

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In claim 20, lines 7-8, it is not clear how to cause an address to generate an exception. The address can not generate an exception.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 3, 8, 10, 15, and 17-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Revilla et al. (U.S. Patent Application Publication No. 2002/0144041), herein referred to as Revilla et al.'041.

Referring to claims 1, 8, and 15, Revilla et al.'041 discloses as claimed a method for generating at least one instruction for execution by a central processing unit

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(execution unit 4, see Fig. 2), the method comprising the steps of: receiving a misaligned instruction address (see page 1, paragraph 0014, lines 5-8, regarding "the control unit 5 may detect if an instruction is improperly aligned in memory"). Note the misaligned address is read from the (program counter in the as Revilla et al.'041's system); causing an exception in response to said misaligned instruction address (see page 2, paragraph 0024, lines 1-4, regarding the control unit 5 may generate the exception status information due to such as misaligned addresses); and executing, in response to said exception, an exception handling routine (inherently existing in such as the exception handling logic 9 of the Revilla et al.'041's system), said routine generating at least one instruction (the instructions are inside the exception handling routine of the Jones et al.'s system since the routine instruction (or microinstruction) is mainly processed by the execution unit 4) for execution by the central processing unit (execution unit 4, see Fig. 2).

Referring to claim 20, Revilla et al.'041 discloses as claimed, as best understood, a computer system (comprising 2, see Fig. 1), comprising: a processor (2, see Fig. 1); a memory (inherently existing in the Jones et al.'s system see Fig. 1), coupled to said processor; sequences of instructions (inherently

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existing in the memory of the Jones et al.'s system see Fig. 1),
stored in said memory, which when executed by said processor
define: means for receiving a misaligned instruction address
(see page 1, paragraph 0014, lines 5-8, regarding "the control
unit 5 may detect if an instruction is improperly aligned in
memory". Note the misaligned address is read from the (program
counter in the as Revilla et al.'041's system); means for
causing said misaligned instruction address to generate an
exception address (see page 2, paragraph 0024, lines 1-4,
regarding the control unit 5 may generate the exception status
information due to such as misaligned addresses); and means for
executing an exception handling routine in response to said
exception to transform data (the original instruction causing
exception due to misaligned address) stored in said memory into
valid processor instructions (the instruction without causing
exception).

As to claims 3, 10, and 17, Revilla et al.'041 also
discloses, as best understood, coding a misaligned instruction
address into a processor instruction; executing said processor
instruction (the instruction to cause the exception due to
misaligned address, see also page 1, paragraph 0014, lines 5-8,
regarding "the control unit 5 may detect if an instruction is
improperly aligned in memory"); and receiving a misaligned

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instruction address (from program counter of Jones et al.'s system) in said processor.

As to claim 18, Revilla et al.'041 also discloses, as best understood, means for transforming said misaligned instruction (the instruction to cause the exception due to misaligned address, see also page 1, paragraph 0014, lines 5-8, regarding "the control unit 5 may detect if an instruction is improperly aligned in memory") address into said valid instruction instructions (the instruction without causing exception) in response to said exception.

As to claim 19, Revilla et al.'041 also discloses, as best understood, means for transforming said misaligned instruction (the instruction to cause the exception due to misaligned address, see also page 1, paragraph 0014, lines 5-8, regarding "the control unit 5 may detect if an instruction is improperly aligned in memory") into a memory address and for using said memory address to fetch said valid instruction (the instruction without causing exception) from memory.

Allowable Subject Matter

4. Claims 4-7, and 11 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph,

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set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

5. Claims 2, 9, 12-14, and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure wherein Coon et al.'552 discloses a method for translating non-native instructions to native instructions for processing on a host processor and discloses using an exception handling routine to quickly generate a unique starting address; Horst et al.'932 discloses a fault tolerant multiprocessor system also discloses an interrupt handling unit to handle improper address problems in the message packet that delivers the transaction; Shimada et al.'112 discloses a method and apparatus for recovering from software faults in a fault tolerant computing system includes a system recording step to record the system status; and Fandrianto et al.'459 discloses an integrated multimedia

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communications processor and codec comprising video processor capable of compressing and decompressing video data.

Contact Information

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Henry Tsai whose telephone number is (703) 308-7600. The examiner can normally be reached on Monday-Thursday from 8:00 AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner supervisor, Eddie Chan, can be reached on (703) 305-9712. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2100 receptionist whose telephone number is (703) 305-3900.

8. In order to reduce pendency and avoid potential delays, Group 2100 is encouraging FAXing of responses to Office actions directly into

the Group at fax number: 703-872-9306.

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This practice may be used for filing papers not requiring a fee.

It may also be used for filing papers which require a fee by applicants who authorize charges to a PTO deposit account.

Please identify the examiner and art unit at the top of your cover sheet. Papers submitted via FAX into Group 2100 will be promptly forward to the examiner.

A handwritten signature in black ink, appearing to read "Henry Tsai", written in a cursive style.

HENRY W. H. TSAI
PRIMARY EXAMINER

May 31, 2004